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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO.       |
|---|-------------|----------------------|-----------------------------|------------------------|
| 10/602,054  | 06/24/2003  | Dae-Ho Choo          | 61920219D1                  | 1023                   |
| 22150 7590 08/10/2007<br>F. CHAU & ASSOCIATES, LLC<br>130 WOODBURY ROAD<br>WOODBURY, NY 11797 |             |                      | EXAMINER<br>RUDE, TIMOTHY L |                        |
|   |             |                      | ART UNIT<br>2871            | PAPER NUMBER           |
|   |             |                      | MAIL DATE<br>08/10/2007     | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                    |  |
|------------------------------|--------------------------------------|------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/602,054 | <b>Applicant(s)</b><br>CHOO ET AL. |  |
|                              | <b>Examiner</b><br>Timothy L. Rude   | <b>Art Unit</b><br>2871            |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-32 and 56 is/are pending in the application.
- 4a) Of the above claim(s) 21-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-20 and 56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

In view of the Appeal Brief filed on 18 April 2007, PROSECUTION IS HEREBY REOPENED. The new Office Action is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

  
RICKY MACK  
SUPERVISORY PATENT EXAMINER

***Election/Restrictions***

1. This application contains claims 21-32 drawn to an invention nonelected with traverse in Paper No. 200401115 and 20040520. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Applicant continues to argue the restriction requirement despite the 10 March 2005 petition denial. Restriction issues are to be addressed by Petition as opposed to Appeal.

On page 3 of the response filed 06 December 2005 Applicant made the admission that the 10 June 2005 amendment to claim 1 does not result in an independent or distinct invention under MPEP 802.01.

Applicant's 06 December 2005 admission includes: *"It is submitted that, even after incorporating the limitation of dependent claim 3, the invention of claim 1 is still directed to the same invention of an in-line system for manufacturing liquid crystal displays comprising the aforementioned essential elements and non-essential elements, and hence does not become an "independent" or "distinct" invention under MPEP §802.01."*

Please compare Applicant's prior admissions filed 20 May 2004, pages 3-5.

Applicant's prior admissions filed 20 May 2004 include: *"Claims 2-20 and 56 are dependent from claim 1. Since each dependent claim incorporates all the limitations of claim 1, the inventions defined in claims 2-20 and 56 would not be "unconnected in design, operation, or effect" with the invention defined in claim 1, and hence the*

*inventions defined in claims 2-20 cannot be "independent" from claim 1. Also, the Examiner has not established that the invention defined in claim 1 is patentable over any of the inventions defined in claims 2-20 and 56. Thus, the inventions defined in claims 2-20 and 56 cannot be "distinct" from claim 1.*

*Accordingly, it is respectfully submitted that the inventions defined in claims 1-20 and 56 are not independent and distinct from each other, and hence it is not proper to impose restriction on these inventions."*

Since applicant clearly admitted on the record that the species are not patentably distinct, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Also, examiner provided the following in an advisory action mailed 28 December 2006: It is respectfully pointed out that arguments are not persuasive. As discussed by telephone on 05 December 2006, Applicant's claim limitations drawn to subject matter that reads on non-elected inventions cannot be grounds for an allowance in this application, even though the applied prior art may actually disclose said subject matter, and even though examiner pointed out said subject matter in one or more office actions.

Applicant may file a divisional to pursue non-elected species.

Claim 1 was amended to add limitations originally present in non-patentably-distinct canceled claim 3 that are drawn to "a sealant heat-treating unit ...". Because

Applicant's admission that those limitations of claim 3 do not result in any patentably distinct species, claim 1 remains rejected based upon the same grounds as the prior rejection of the species having no sealant heat-treating unit.

To avoid convoluting prosecution, please comply with Applicant's election of 20 May 2004 (page 7) in response to restriction requirement of 15 December 2003 whenever filing amendments to claims. Adding limitations drawn to any of Applicant's previously presented non-patentably-distinct alternate species claims will never result in a patentably distinct claim due to Applicant's admissions above. Adding limitations not previously claimed (and not subject to Applicant's admissions) that are drawn to non-elected species will result in claim withdrawal due to the presence of limitations drawn to a non-elected species.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

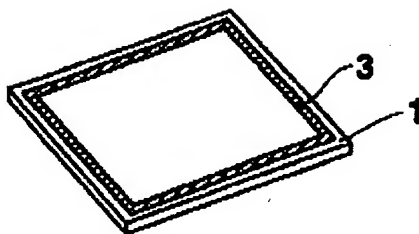
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

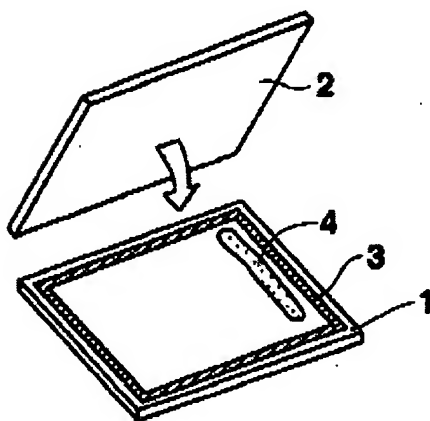
2. Claims 1, 2, 4-20, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasumi et al (Kawasumi) USPAT 5,978,065 in view of Adachi, Japanese patent application publication JP 56114928 A.

As to claim 1, Kawasumi discloses (Figures 1A-3B) apparatus and a method for manufacturing liquid crystal displays (entire patent, background of the invention, and especially col. 5, line 13 through col. 7, line 14), comprising: applying sealant on one of two substrates of a mother glass, the mother glass having at least one liquid crystal cell (col. 5, lines 14-37) [inherently requires Applicant's sealant applying unit, even if it is manual], a substrate-attaching unit, 5 and 7, conjoining substrates in a vacuum (background, suitable though more costly method – affords better degasification of liquid crystal material). Please note numerous references teach these steps/apparatus.

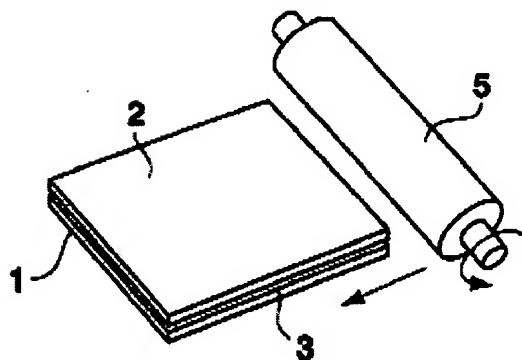
**FIG. 1A**



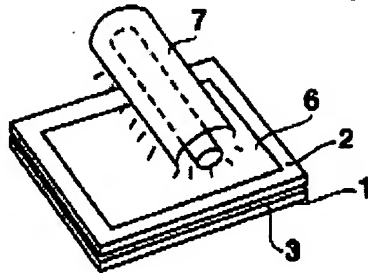
**FIG. 1B**



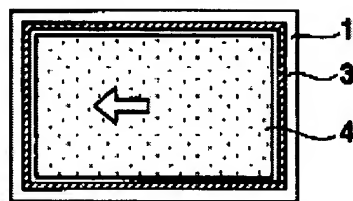
**FIG. 1C**



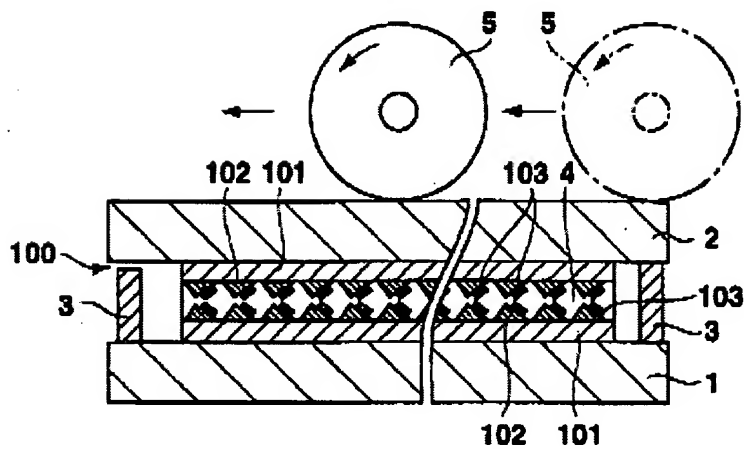
**FIG. 2**



**FIG. 3A**



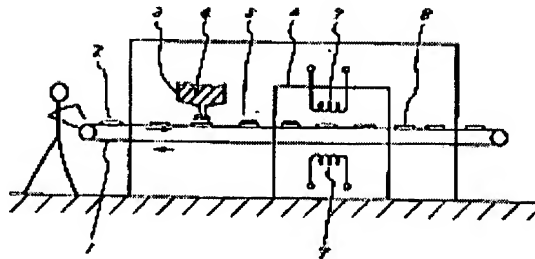
**FIG. 3B**



Kawasumi does not explicitly disclose the use of an in-line conveying unit.

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Adachi teaches the use of a belt conveyor to provide a cleaner environment for the operators.



Adachi is evidence that ordinary workers in the art of liquid crystals would find the reason, suggestion, or motivation to add the use of a belt conveyor to provide a cleaner environment for the operators.

Therefore, it would have been obvious to one having ordinary skill in the art of liquid crystals at the time the invention was made to modify the LCD system of Kawasumi with the belt conveyor of Adachi to provide a cleaner environment for the operators.

Claim 1 was amended to add limitations originally present in canceled claim 3 that are drawn to "a sealant heat-treating unit ...". However, due to Applicant's admission that those limitations of claim 3 do not result in any patentably distinct species, claim 1 remains rejected based upon the same grounds as the prior rejection of the species having no sealant heat-treating unit.

Since applicant clearly admitted on the record that the claimed species are not patentably distinct, and since the examiner found one of the inventions unpatentable

over the prior art (original claim 1), the evidence or admission is hereby used in a rejection under 35 U.S.C. 103(a) of the other invention (amended claim 1).

As to claims 2, 4-20, and 56, Kawasumi in view of Adachi as combined above discloses the apparatus of claim 1, above. The added limitations of claims 2-20 and 56 are drawn to inventions of an in-line system that are not patentably distinct per Applicant's admission in Paper No. 20040520 [remarks filed 20 May 2004, top of pages 3 and 5] and admitted again on page 3 of the response filed 06 December 2005. Therefore claims 2, 4-10 and 56 are rejected on the bases that Applicant admits they are not patentably distinct from rejected base claim 1.

3. Rejection of claims 1, 2, 4-20, and 56 under 35 U.S.C. 103(a) as being unpatentable over Kawasumi et al (Kawasumi) USPAT 5,978,065 in view of Ogawa USPAT 6,680,759 B2 is withdrawn.

### ***Response to Arguments***

Applicant's arguments filed on 18 April 2007 have been fully considered but they are not persuasive.

Applicant's ONLY substantive arguments are as follows:

(1) Restriction is improper.

(2) Kawasumi and Adachi fail to teach a sealant heat-treating unit forming a reaction-prevention layer on a surface of the sealant to prevent a reaction between the sealant and a liquid crystal material.

(3) Dependent claims are allowable because they directly or indirectly depend from an allowable base claim.

Examiner's responses to Applicant's ONLY arguments are as follows:

(1) It is respectfully pointed out that Applicant's petition regarding restriction was denied 10 March 2005. Restriction issues are handled by way of Petition, not Appeal.

(2) It is respectfully pointed out that Applicant has made the omission that the amended claim 1 limitations of a sealant heat-treating unit forming a reaction-prevention layer on a surface of the sealant to prevent a reaction between the sealant and a liquid crystal material are not patentably distinct from the original claim 1. Claim 1 remains rejected because Applicant's admission was used in a rejection under 35 U.S.C. 103(a) of the other invention.

(3) It is respectfully pointed out that in so far as Applicant has not argued rejection(s) of the limitations of dependent claim(s), Applicant has acquiesced said rejection(s).

Any references cited but not applied are relevant to the instant Application. Korean publication 100487258 B1 provided in IDS filed 18 September 2006 is considered relevant to the instant Application.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy L. Rude whose telephone number is (571) 272-2301. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



tlr

Timothy L Rude  
Examiner  
Art Unit 2871



RICKY MACK  
SUPERVISORY PATENT EXAMINER